

BRIEF SUMMARY

Qin, X., Bochslers, T. M., Aizpurua, A., Cheong, A. M. Y., Koutstaal, W., & Legge, G. E. (2014). Incidental memory of younger and older adults for objects encountered in a real world context. *PLoS ONE* 9(6), e99051.

Effects of context on the perception of, and incidental memory for, real-world objects have predominantly been investigated in younger individuals, under conditions involving a single static viewpoint. We examined the effects of prior object context and object familiarity on both older and younger adults' incidental memory for real objects encountered while they traversed a conference room. Recognition memory for context-typical and context-atypical objects was compared with a third group of unfamiliar objects that were not readily named and that had no strongly associated context. Both older and younger adults demonstrated a typicality effect, showing significantly lower 2-alternative-forced-choice recognition of context-typical than context-atypical objects; for these objects, the recognition of older adults either significantly exceeded, or numerically surpassed, that of younger adults. Testing-awareness elevated recognition but did not interact with age or with object type. Older adults showed significantly higher recognition for context-atypical objects than for unfamiliar objects that had no prior strongly associated context. The observation of a typicality effect in both age groups is consistent with preserved semantic schemata processing in aging. The incidental recognition advantage of older over younger adults for the context-typical and context-atypical objects may reflect aging-related differences in goal-related processing, with older adults under comparatively more novel circumstances being more likely to direct their attention to the external environment, or age-related differences in top-down effortful distraction regulation, with older individuals' attention more readily captured by salient objects in the environment. Older adults' reduced recognition of unfamiliar objects compared to context-atypical objects may reflect possible age differences in contextually driven expectancy violations. The latter finding underscores the theoretical and methodological value of including a third type of objects—that are comparatively neutral with respect to their contextual associations—to help differentiate between contextual integration effects (for schema-consistent objects) and expectancy violations (for schema-inconsistent objects).
